

reading enough information to determine the block list of a given file given an offset into the file and a length.

6. (Twice Amended) The method of claim 3 wherein step a. comprises the steps of:
sending a mount request; and
receiving a mount response.

7. *The method of claim 6 wherein said formal description of the file system read in step b. is saved for future use when a read request or a write request is made by said client.*

8. *The method of claim 7 wherein said disc storage device is located in a Storage Area Network (SAN).*

9. *The method of claim 7 wherein said client is located in said server.*

11. *A self-describing file system comprising:*

*a disc storage device for storing data;
a file server attachable to said disc storage device for accessing said disc storage device; and
a client connected to said file server, wherein said client obtains a formal description of the file system from the disc storage device containing the file system, and wherein said client can read and write data to and from said disc storage device without requiring further knowledge of said file system.*

12. *The system of claim 11 wherein said client is configured to read enough information to determine the physical block and offset containing a given file's inode given its inode number.*

13. *The system of claim 12 wherein said client is configured for reading enough information to determine the block list of a given file given an offset into the file and a length.*

14. *The system of claim 13 wherein said disc storage device is located in a Storage Area Network (SAN).*

15. *The system of claim 13 wherein said client is located on said server.*

16. *A method for reading or writing data from a storage source comprising:*

*acquiring a description of a file system associated with a storage resource; and
reading or writing directly to the storage resource based on the description.*

- C1
17. *The method of claim 16 for reading or writing data blocks associated with the file system.*
 18. *The method of claim 16 further including:
determining a block and an offset associated with a file on said file system based on a file identifier.*
 19. *The method of claim 18 further including:
determining a block list associated with a file based on an offset into the file and a length.*
 20. *An apparatus for reading and writing data from a storage resource configured to:
acquire a description of a file system associated with a storage resource; and
reading or writing directly to the storage resource based on the description.*
 21. *The apparatus of claim 20 which includes a computer configured to read and write data blocks associated with the file system.*
 22. *The apparatus of claim 20 which includes a computer configured to read and write files associated with the file system.*
 23. *The apparatus of claim 22 wherein the computer is configured to determine a block and offset associated with a file based on a file identifier.*
 24. *The apparatus of claim 22 wherein the computer is configured to determine a block list associated with a file based on an offset into the file and a length.*
 25. *An article comprising a computer-readable medium that stores computer executable instructions for causing a computer to:
acquiring a description of a file system associated with a storage resource; and
reading or writing directly to the storage resource based on the description.*
 26. *The article of claim 25 wherein the article includes instructions for causing the computer to write data blocks associated with the file system.*

C1
27. *The article of claim 25 wherein the article includes instructions for causing the computer to write files associated with the file system.--*

28. *A system comprising:*

a server configured to:

send a file system description associated with a storage resource to a client; and

a client configured to:

receive the file system description from the server, and

read or write directly to the storage resource based on the description.

29. *The system of claim 28 wherein the client configured to read and write data blocks associated with the file system.*

30. *The system of claim 28 wherein the client configured to read and write files associated with the file system.*

31. *The system of claim 30 wherein the client configured to determine a block and offset associated with a file based on a file identifier.*

32. *The system of claim 30 wherein the client configured to determine a block list associated with a file based on an offset into the file and a length.*